

1900.

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The River Tees Port Sanitary Authority.

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FOURTEENTH  
ANNUAL REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH.

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# The River Tees Port Sanitary Authority

*Was Constituted by an Order of the Local Government Board, issued on  
the 2nd day of January, 1886.*

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The Members of the Board are Elected as follows:—

## BY THE MIDDLESBROUGH CORPORATION.

S. A. SADLER, Chairman.

W. BULMER.	T. H. WARD.	R. BURROWS.
J. FORBES.	J. H. GUNTER.	ALEX. MAIN.

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## BY THE STOCKTON CORPORATION.

J. BURN.	R. HIND.	J. H. NIGHTSCALES.
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## BY THE ESTON LOCAL BOARD.

D. EVANS.	E. BEACHAM.
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## BY THE THORNABY CORPORATION.

WM. ANDERSON.	H. TAYLOR.
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## BY THE STOCKTON RURAL SANITARY AUTHORITY.

C. L. BELL.	R. GRIGG.
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## BY THE NORMANBY LOCAL BOARD.

JOHN ATKINSON.

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OFFICES OF BOARD ... .. MUNICIPAL BUILDINGS,  
MIDDLESBROUGH.

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FLOATING HOSPITAL ... .. ON THE RIVER TEES,  
OPPOSITE ESTON JETTY.

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1900.

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The 14th Annual Report of the Medical Officer of Health.

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MIDDLESBROUGH,

1st JANUARY, 1901.

*To the Chairman and Members of the River Tees Port Sanitary Authority.*

GENTLEMEN,

I have the honour to present to you the Fourteenth Annual Report, that being for the year 1900.

The year 1900 was one in which the work of the Port Sanitary Authorities attracted a larger share of public attention than it has, I believe done for some years. The cause has been the widespread belief that this country, with its huge maritime commerce, stands at the present time in peculiar danger of an invasion by one of the most insidious, loathsome and deadly diseases. This disease, it is now known prevails to a large and unsuspected extent in many foreign countries. That there are some grounds for this belief is proved by the history of the latter half of the year under consideration, during which an outbreak actually occurred at one of our great ports, and a few cases were met with at other places.

### THE BUBONIC PLAGUE.

This disease, which alarmed us in August, 1899, by making its appearance in Portugal, though it gradually left that country, continued unabated in certain other parts of the world. In India the number of deaths from this cause alone has averaged over 1,500 per week. It has stuck tenaciously to Mauritius, where the death rate has been very high, and many cases have been met with at Hong Kong, The River Plate, Rio de Janeiro, Australia, San Francisco, Madagascar, Turkey and Arabia.



But in August it made its appearance in the second city of the Empire, and extraordinary measures, entailing vast expense, had to be taken to prevent it spreading. One peculiarity of this outbreak was that it could not be traced to the River or to any ship. The first cases occurred in a slum, in a part of the town above the point at which ships are moored.

On the 23rd September, a ship arrived in the Tyne from Rosario, all apparently well, but inasmuch as the ship had called en route at King's Lynn, the crew was not medically examined on reaching the Tyne, and the men were allowed to proceed to their homes. Soon afterwards one of them, whose home was at Llandaff, developed symptoms of Plague, and died of the disease.

By its Order of the 19th September, 1900, the Local Government Board included Bubonic Plague amongst those diseases which are already compulsorily notifiable.

From the time of the outbreak in Oporto, I have regularly sent information of the prevalence of Plague to H. M. Collector of Customs and your Inspector, and requested to be called to visit all ships arriving in the port from infected places, whether directly or indirectly, but by a resolution of the 8th October, this practice was discontinued, except as regards such ships as come direct from infected places.

**YELLOW FEVER AND CHOLERA** have not, as far as I have observed, prevailed to any great extent in any country with which the Tees has trade connections.

There have been ominous rumours concerning the prevalence of Typhus in various parts of the country. but no cases have been met with at this port.

**SMALL POX**, which broke out in Hull in March, 1899, maintained its hold until April of this year. In the course of the twelve months, there have been nearly 1,000 cases there. During the year the disease made its appearance in Lancashire, and about 100 cases occurred in Liverpool. In November, Small Pox was discovered on board a ship at Hartlepool, and several more cases afterwards occurred in the towns adjoining. There seems to be no doubt that the disease was raging at this time at Bilbao, although I received no information from the British Consul there.

On *December* 15th, the s.s. "*Espana*," a Spanish Ship, arrived in this port from Bilbao, and anchored at Eston Jetty. The Captain reported that a fireman was ill, but felt sure it was "only a cold," though he had noticed that the man had a rash out on his face. The case being unmistakably one of Small Pox. I had the man immediately

removed to the Floating Hospital, his effects destroyed, the rest of the crew re vaccinated, and the ship thoroughly disinfected. On further examination, I found that the patient had never been vaccinated, and was the only member of the crew in that condition.

The ship was kept practically in quarantine, and daily visits were paid until she left for the Tyne, when the officials of that port were warned of her approach.

The man made an uninterrupted recovery, and was discharged on January 18th of this year (1901).

## THE FLOATING HOSPITAL.

The Hospital fully maintains its suitability and efficiency for the reception, isolation and treatment of infectious disease.

I am informed that no alterations or repairs have been carried out during the year. In view of the possibility of the arrival in our port of an infected ship, in which a considerable amount of disinfection might be necessary, I would recommend the Authority to take into consideration, at an early date, the question of providing a steam disinfecter at the Hospital.

On the *1st January, 1900*, there was one case in Hospital, a Norwegian, suffering from Influenza, who was discharged on the 8th January.

There have been two admissions during the year, one in September with Malaria, the other in December with Small Pox, who remained in Hospital until January 18th of this year, as above stated.

All the cases admitted recovered.

Average stay in Hospital      ...      ...      ...      5½ days.

The admissions into the Hospital during the last 5 years have been as follows :—

1896	...	...	...	...	7 cases.
1897	...	...	...	...	6 „
1898	...	...	...	...	4 „
1899	...	...	...	...	3 „
1900	...	...	...	...	2 „

Following is a list of ships visited and of cases of disease dealt with by myself, during the year :—

*January 19th*, at 11-30 p.m., s.s. "Clan Graham," from Vizagapatam, via London. Two seamen ill, one with Stomatitis, the other with Abscess of Arm. Prescribed. Recovered.

*January 25th*, at 9 p.m., N. E. Docks, s.s. "Steinberger," from Hamburg. Chief Officer ill with feverish cold. Carpenter with Inflammation of hand, and three able seamen with Hernia, Rheumatism and Syphilis respectively. Prescribed. All Recovered.

*February 2nd*, 4 p.m., at Newport Wharf, Lighter "Brownie," from the Tyne. First Officer ill with Pneumonia. He was removed to the N. R. Infirmary.

*February 9th*, 5-30 p.m., s.s. "Alexander Pirie," from Hull. Able seaman named A. Davidson, ill with Pneumonia. Removed to Stockton Hospital. Recovered.

*February 14th*, 9-30 a.m., sailing ship "Thekla," from Rio de Janeiro. The Chief Officer reported that the Captain had died on the 21st December, 1899, of Yellow Fever, and was buried at sea. I paraded the crew and found many with boils, but otherwise quite well. Ordered thorough disinfection of the ship.

*February 20th*, 4 p.m., at N. E. Docks, s.s. "Umfuli," from Swansea. Second Officer ill with Influenza. Prescribed. Recovered.

*March 3rd*, 9 a.m., at N. E. Docks, s.s. "Miles Coverdale," from Hull. An able seaman ill with Lumbago. He was allowed to proceed to his home at Hartlepool.

*April 11th*, at 8 p.m., s.s. "Luddick," from Hull. Chief Mate ill with Influenza. Prescribed. Recovered.

*April 12th*, sailing ship "Ocean," from Rio de Janeiro. The Boatswain, named Casberson, ill with Dropsy. Removed to the N. R. Infirmary.

The second mate had died on March 25th, while on the passage from Rio de Janeiro. He was two months in Hospital at Rio, suffering from Inflammation of the Kidneys.

*April 25th*, at 2 p.m., Lighter "Europa," from Elswick. The Master died suddenly while leaving his ship. Case was reported to Coroner and an Inquest held. The cause of death was Heart disease and Syncope.



June 27th, s.s. "Royal Standard," from Bilbao. A fireman named Schwartz ill, certified by the Doctor at Bilbao to be of unsound mind. He was handed over to the German Consul.

August 1st, at 11-30 a.m., s.s. "Luddick," from Hull. Seaman ill with Tonsillitis. Prescribed. Removed to Hospital.

September 4th, at 2 p.m., s.s. "Glenfield," from Poti. A fireman named Simon Bays ill. Removed to Floating Hospital. The case proved to be one of Malarial Fever. He was discharged on September 7th cured.

September 24th, 10-30 p.m., at Harris' New Wharf, s.s. "Gutenfels," from Bremen and Calcutta. One seaman had a swelling in armpit, probably an abscess of innocent character. Three of the crew had been admitted into Hospital at Bremen, two suffering from Dysentery and one from Dropsy. Prescribed. Recovered.

December 1st, s.s. "Bingo Maru," from Antwerp. A seaman named Jentaro Isa, suffering from injuries caused by falling down the hold. He was removed to North Ormesby Cottage Hospital.

December 17th, 3 p.m., at Eston Jetty, s.s. "Espana," from Bilbao. A fireman named Juan Ma Gardoqui, ill with Small Pox. He was removed to the Floating Hospital, and his effects destroyed by fire. The rest of the crew were re-vaccinated, the ship thoroughly disinfected, and kept under observation while in port. Discharged 18th January, 1901, cured.

December 25th, at 11 a.m., s.s. "Propitious," from Bilbao. The donkeyman, named George Brocklebank, was suffering from injuries, probably the result of a fall.

Another seaman on board the above-named vessel was ill and suffering from Liver disease and Jaundice. Prescribed, and allowed to proceed home.

17 ships were thus reported to have sickness on board, or to have had it recently.

Compared with previous years, the following results are obtained :—

1896	...	...	...	15
1897	...	...	...	30
1898	...	...	...	27
1899	...	...	...	18
1900	...	...	...	17

The Local Government Board Inspector has this year again drawn attention to the need of telephonic communication with Eston. I respectfully suggest that this matter be again taken into consideration by the Authority, with a view to its being carried out.



## GENERAL SANITARY WORK.

The usual Sanitary inspections have been carried out by Inspector Jefferson, and the following is his statement of the work done during the year :—

Number of Vessels inspected from 1st January to 31st December, 1900 :—

British Steam Ships ... ..	1930
British Sailing Ships .. ..	231
Foreign Steam Ships ... ..	997
Foreign Sailing Ships ... ..	155
	<hr/>
Total Ships	3313
Extra Visits	147
	<hr/>
Total Visits	3460
	<hr/>

The Nationalities of the Ships are as follows :—

British Steam Ships	...	...	...	1930
British Sailing Ships	...	...	...	231
German Steam Ships	...	...	...	273
German Sailing Ships	...	...	...	15
Norwegian Steam Ships	...	...	...	247
Norwegian Sailing Ships	...	...	...	72
Spanish Steam Ships	...	...	...	136
Swedish Steam Ships	...	...	...	134
Swedish Sailing Ships	...	...	...	11
Dutch Steam Ships	...	...	...	108
Dutch Sailing Ships	...	...	...	1
Japanese Steam Ships	...	...	...	23
Danish Steam Ships	...	...	...	17
Danish Sailing Ships	...	...	...	26
Russian Steam Ships	...	...	...	22
Russian Sailing Ships	...	...	...	29
Greek Steam Ships	...	...	...	2
Austrian Steam Ships	...	...	...	2
Belgian Steam Ships	...	...	...	27
Brazilian Steam Ships	...	...	...	1
French Steam Ships	...	...	...	5
French Sailing Ships	...	...	...	1
				<hr/>
Total Ships				3313
Extra Visits				147
				<hr/>
Total Visits				3460
				<hr/>

The Structural and other defects observed include the following :—

		NUMBER OF	REMEDIED
		CASES.	UNDER NOTICE.
Dirty Forecastles	... ..	21	20
Defective Water Closets	.	17	17
Dirty Forepeaks	... ..	9	8
Insanitary Water Tanks	... ..	8	8
Dirty Bilges	... ..	4	4
Defective Ventilation	... ..	7	6
Total		66	63

Compared with previous years, the following results are obtained :—

		SHIPS WITH DEFECTS. &c.	
YEAR.	ARRIVALS.	NUMBER.	REMEDIED.
1896	3377	95	86
1897	3484	83	76
1898	3003	65	63
1899	3088	55	52
1900	3313	66	63

Quantities of old clothing and beds have been destroyed, which had been left on board vessels from long foreign voyages.

The Steam Launch, “ Osprey,” having undergone the following repairs:—new decks, new ceilings, new casing on deck, fore and aft; boiler recovered and engines overhauled, and caulking from keel to gunwhale, is now in excellent condition.

In conclusion, I beg to express my thanks to your Clerk and Deputy Clerk for advice and assistance; and particularly to Mr. Hobbins, the Collector of H. M. Customs, and his Officers for their constant courtesy and prompt assistance in enabling your Officers to visit ships from infected ports, and in other directions.

I am, Gentlemen,

Your obedient Servant,

J. WATKIN EDWARDS, M.B.,

Medical Officer of Health.

## APPENDICES.

Circular.

Precautions against introduction of Plague.

LOCAL GOVERNMENT BOARD,

WHITEHALL,

9th December, 1899.

SIR,

I am directed by the Local Government Board to state that they have lately had under consideration the precautions to be taken for preventing the introduction of the infection of plague into this country, having regard to the existence of the disease in Portugal, the voyage from which country to this is of less duration than the term to which the period of incubation of the disease not uncommonly extends.

It is of great importance that the supervision of shipping by sanitary officers, and in particular the examination, under Article 8 of the Board's General Order of the 9th of November, 1896, of ships arriving from places known to be infected with plague, should be carried out with especial care; and the Board have been in communication with the Commissioners of Customs, with a view to securing that the greatest possible assistance shall be rendered by Officers of Customs to Medical Officers of Health in carrying out the regulations in that Order.

The Commissioners of Customs have cordially co-operated with the Board in this matter, and have issued to their Boarding Officers a General Order, of which two copies are enclosed. It is requested that one of these copies may be handed to the Medical Officer of Health, and that his particular attention may be drawn to its object and provisions.



It will be seen from paragraph 4 of the Order, that the Officers of Customs will look to the Medical Officers to inform them from time to time of any particular ports or countries, the vessels arriving from which the Medical Officer of Health may desire to visit; and, in this connection, the Board would observe that the earliest information which would usually be available to this end is that which would be obtained by a regular examination of the news telegraphed from abroad for the purposes of the daily Press. The Officers of Customs, having thus been communicated with, will then, on their part, give the Medical Officer of Health any information they may possess respecting the arrival, or impending arrival, of any ships from the ports or countries indicated. The Board are desirous that the Medical Officer of Health should avail himself to the full of this valuable assistance; and that, in view of the facilities offered him under paragraphs 5 and 6 of the Customs Order, he should, on his part, use every effort so to carry out his duties as to cause the least possible inconvenience or delay to the Customs Officers in the discharge of their duties, and thus to obviate, as far as may be practicable, any ground of complaint on the part of the shipping interest.

I am to request that the Sanitary Authority will at the same time consider whether their existing sanitary staff is adequate for the prompt performance of the duties thus devolving on the Medical Officer of Health, in connection with the supervision of shipping generally in the district. It will be remembered that under Article 1 of the Board's Order of the 9th of November, 1896, the term "Medical Officer of Health" in that Order includes any duly qualified medical practitioner appointed or employed by the Sanitary Authority to act in the execution of the Order.

I am, Sir,

Your obedient Servant,

S. B. PROVIS,

Secretary.

*The Clerk to the*

*Port Sanitary Authority.*

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## PLAGUE MEMORANDUM.

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### (1.) ADMINISTRATIVE CONSIDERATIONS.

Plague having for the space of nearly two centuries receded from Europe, has in recent years once more trended westward, and has now again appeared in Great Britain. Sanitary Authorities of England and Wales will therefore need to be on the alert to detect the presence of this disease in their districts, with a view to prevent its becoming epidemic among their populations.

It is to be anticipated, from the behaviour thus far of the recent western extension of the disease, that plague will not readily fasten on that section of our population which is properly housed, cleanly, and generally, in a sanitary sense, well to do ; that rather it will especially affect, if it obtains foothold in one and another district, insanitary areas such as are peopled by the poorest class, and where overcrowding of persons in houses and dirt and squalor of dwellings and of inhabitants tend to prevail.

In these circumstances the following facts respecting plague deserve to be borne in mind :—

- (1.) Plague has an incubation period of 3 to 5 (in exceptional cases of perhaps 8 to 10) days.
- (2.) Plague is wont, especially in its earlier manifestations, to assume a mild form, or even to present anomalous symptoms, tending to confound it with other and more innocent diseases.
- (3.) Plague in all its forms must needs be regarded as personally infective.
- (4.) Plague affects rats as well as the human subject ; it may, indeed, be found causing mortality among these lower animals antecedent to its definite invasion of the population. There can be no doubt that the rat and man are, as regards plague, reciprocally infective.



Although local authorities should be on their guard against plague, it is not intended to suggest that there exists any cause for alarm. There can be no doubt that, in this country, hygienic conditions and methods of dealing with infectious diseases are far in advance of those of former centuries wherein plague was repeatedly epidemic in our populations; they are in advance too, as we believe, of those in localities abroad where plague has shown itself formidable in recent years. And in so far as, in our districts, these conditions and methods are now satisfactory and sufficient, there is the less likelihood of spread of infection from plague cases casually importèd. During the past 50 years there has occurred in England and Wales a large diminution in the mortality from most diseases of the infectious class, and in the same period typhus fever has declined almost to extinction. This latter disease is that which, as regards the conditions under which it becomes prevalent, most closely resembles plague. Wherefore it may be confidently anticipated that the measures of sanitary improvement, of isolation and of disinfection, which have been found effectual against indigenous diseases such as typhus will, if promptly and thoroughly brought to bear, be equally effectual against plague.

First among measures requisite for control of plague is prompt information to the local authority of all cases of the disease occurring in their district. The Board, therefore, have issued an Order requiring, under penalty, immediate notification to the Medical Officer of Health of the district, and by him to the Board, of every recognized case of plague. Meanwhile, and in order to help toward recognition of this disease in its obscurer manifestations, a statement of the clinical features exhibited by this malady will be found on Part (2) of this Memorandum. Further, and with a view to assisting in the identification of plague newly developing in one and another district, the Board have arranged for bacteriological testing, without cost to the local authority, of material submitted to their Medical Officer by the Medical Officer of Health from the earliest suspected case or cases. †

In the event of plague being detected in any district, the measures to be taken to prevent its spread are, generally speaking, those which are available against the more ordinary epidemic diseases of this country, as set forth in the accompanying "General Memorandum." These measures include prompt removal of the sick persons to hospital and their isolation therein; the destruction or thorough disinfection of all infected articles, with the effectual disinfection, also of the invaded dwelling place; the keeping under observation during 10 days after detection of each plague case all persons who have been in contact with the patient, and house to house visitation for the discovery of

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† Directions for collecting and forwarding suspected material are issued by the Local Government Board to Medical Officers of Health.



unreported or suspicious cases; the abatement as speedily as possible of all insanitary conditions in the locality which may tend to the spread of the disease; and, in the case of death, the prompt disposal of the corpse, with all due precautions against it becoming a source of infection.

An essential measure of precaution in view of the observed relation between plague in rats and plague in the human subject, will be the prompt destruction of all rats in districts threatened or invaded by plague, care being taken that their carcasses are collected and burnt without being unduly handled.

It is to be noted that when treated in a well appointed hospital, with plentiful fresh air and proper attention to cleanliness and disinfection, plague, except in its pneumonic and septicæmic forms, shows but small infective power; and that therefore doctors and nurses in attendance on the sick run but little risk of contracting the disease. Nevertheless, these and other persons brought into close relation with plague, may be afforded protection against infection by submitting themselves to protective inoculation of the sort practised with advantage to the inhabitants of invaded areas by Professor Haffkine, under the auspices of the Indian Government, Bombay. As yet the protective material in question is not generally purchaseable in this country. For the present, therefore, and until further notice, the Board, having provided themselves with a supply of Professor Haffkine's plague prophylactic, will be prepared to issue this material in limited amount to the Medical Officers of Health of districts actually invaded by plague, for the protection therein of doctors, nurses, and other persons that are, under the conditions of the invaded area, being subjected to sustained exposure to plague infection.

## (2.) SYMPTOMS OF PLAGUE.

An ordinary attack of Plague usually begins some three or five days after exposure to infection. Such attack may develop gradually, but, as commonly met with, there is sudden onset with much fever, as indicated by a high temperature, rapid pulse, headache, hot skin, and thirst. The eyes are injected as if inflamed; the expression, at first anxious and frightened, becomes subsequently vacant and dull; the utterance is thick, and the gait unsteady as in one under the influence of drink. There is at times a distinct tendency to faint. The tongue is at first covered with a moist white fur except at the edges, which are red, but later on it becomes dry and of a mahogany colour.

The most distinctive sign of plague is the presence of swellings, or "buboes" as they are called, in the groin, armpit, or neck. These "buboes," which led to the disease being called "bubonic plague," and which have no relation to venereal complaints, appear as a rule about the second or third day of the disease. They are usually painful

and tender on pressure, and in size they vary from that of an almond to that of an orange. Later on they may "gather" and burst like an ordinary abscess. There may, too, appear about the body purple spots, and what are known as "carbuncles."

But buboes are not an essential feature of plague. Cases occur in which these manifestations of the disease are greatly delayed or even absent, as for instance in "Pneumonic," "Gastric," and "Septicæmic" plague; forms of the malady which may be mistaken for respectively inflammation of the lungs, typhoid fever, and acute blood poisoning. Plague in these forms is always grave; not only because of the fatality of the cases, but for the reason that they, especially the "pneumonic," are highly infectious to other persons. It is important, therefore, that in localities where plague is present or is threatened, cases of anomalous illness of the above sorts be without loss of time brought under medical supervision.

Besides the forms of plague already referred to there is yet another, namely, the so-called "ambulant" form. In plague of this description the affected person is hardly ill at all, presenting no definite symptoms perhaps beyond indolent, though painful, swellings in groin or armpit. Such plague cases may nevertheless be instrumental in spreading the disease, and any persons therefore who, having been possibly exposed to plague, exhibit these symptoms, should be isolated and watched medically until the nature of their malady has been definitely ascertained.

W. H. POWER,

Medical Officer.

Local Government Board,

Medical Department,

September, 1900.